

## Curriculum Vitae of Prof. Luca Prodi

Luca Prodi was born in Bologna, Italy, in 1965.

### Education

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- 1988 Laurea cum laude at the University of Bologna.
- 1991 Visiting scientist at Argonne National Laboratory (IL, USA) under the supervision of Prof. Michael Wasielewski.
- 1992 Ph.D. Degree at the University of Bologna under the supervision of Prof. Vincenzo Balzani discussing a thesis entitled "Supramolecular Photochemistry"

### University Career

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- 1992 Appointed as Researcher at the Faculty of Science of the University of Bologna
- 2004 Appointed as Associated Professor at the Faculty of Science of the University of Bologna.
- 2006 Appointed as Full Professor of General and Inorganic Chemistry at the Faculty of Pharmacy of the University of Bologna, he is now full Professor at the Department of Chemistry "Giacomo Ciamician"

His teaching duties are:

- General and Inorganic Chemistry (for undergraduate students in Chemistry and Material Chemistry)
- Nanomedicine (for master students in Photochemistry and Molecular Materials)

### Publications and Patents

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Luca Prodi is author or co-author of more than 230 articles published on peer reviewed international journals, that have received more than 13750 citations and is co-author of the Handbook of Photochemistry and of several chapters on collective volumes. His h-index is 67 (Scopus, 05/05/2025).

He is also inventor in several patents and co-founder of 4 spin-off companies.

In the last period his research has focused on the synthesis and characterization of photoactive systems - both supramolecular and nanostructured - for applications in the field of nanomedicine and environmental analysis. In particular, his research group has developed silica nanoparticles that have shown – on the one hand –, a very low toxicity both *in vitro* and *in vivo* and – on the other hand – a high luminescence signal. These nanoparticles have been tested for various biomedical applications, such as *in vitro* diagnostics of viruses and bacteria, imaging of tumors and sentinel lymph nodes, drug delivery, and phototherapy. In the environmental field, he developed systems for the detection of micro and nano-plastics and of the so-called emerging pollutants.

During the years, his scientific production has grown more and more consolidating his position in the scientific community, and his role can be documented by the invitation to present his research work at different international universities and at international conferences, and to write comprehensive reviews on the topic. He was also able to set up a series of collaborations with different groups in the USA, France, Germany, Poland, UK, Spain, Portugal, Hungary and, of course, Italy. In 2012 it was invited Professor at the Ecole Normale Supérieure de Cachan, France.

In the field of education, in 2021, together with V. Balzani, L. Moggi, and M. Venturi, he published the book 'Chemistry: Fundamentals and Perspectives', Bononia University Press publisher, and in 2024 he has been co-author of the 2<sup>nd</sup> edition of the book "Stechiometria - Chimica generale attraverso gli esercizi, Edizioni A.L.E."

### **International Memberships**

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Member of the Editorial Board of Journal of Fluorescence (Springer) (1999 – 2001).

Member of the Editorial Board of New Journal of Chemistry (Royal Society of Chemistry- CNRS) (2001 – 2006)

Member of the International Advisory Board of New Journal of Chemistry (2006-2015).

Associated Editor of New Journal of Chemistry (2015-2024).

Member of the Editorial board of Methods and Applications in Fluorescence (IOPscience) (2014-Present)

Member of the Subcommittee on Photochemistry of IUPAC (2007 – 2015)

Member of the Academy of Science of Bologna (2018 – present)

Member of the Italian Chemical Society (2024 – present)

Fellow of the Royal Society of Chemistry (2006 – present)

### **Awards**

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1990 "Federchimica: Per un Futuro Intelligente" award, Federchimica (Association of the Italian chemical companies).

2009 Gonzales-Ciamician prize, awarded jointly by Società Chimica Italiana and by Real Sociedad Española de Química (Italian and Spanish Chemical Societies).

2020 "Career Award" by the Proteomass scientific Society (Portugal) "for his outstanding contribution to the field of Nano@Molecular Fluorescent Chemosensors and Supramolecular Chemistry

2024 "Emanuele Paternò" Gold Medal, awarded by the Italian Chemical Society to a Scientist in recognition of their contribution to the development of Italian chemical science and technology.

### **Managing experiences**

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2003-2009	Co-founder and Member of the Board of a spin-off company, Cyanagen s.r.l., active in the field of luminescent sensors and labels
2005-present	President of the Board of CISA s.c.a.r.l., controlled (51%) by a local government body (Provincia di Bologna). The company is active on the development of renewable energies and on the dissemination of related good practices (mean year budget: 400,000 €).
2010-2013	Member of the "Research Observatory" of the University of Bologna.
2013-2024	Co-founder and Member of the Scientific Committee of Personal Genomics s.r.l., active in genome analysis and interpretation.
2011-2015	Deputy Head of the Department of Chemistry "Giacomo Ciamician".
2015-2018	Head of the Department of Chemistry "Giacomo Ciamician".
2022-present	Coordinator of the Ph.D. course in Chemistry at the University of Bologna
2024-present	Co-founder and CEO of a spin-off company, Bionys s.r.l., active in the field of portable devices for clinical analyses

### **Funding ID**

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Over the course of his career, he has obtained various grants and contracts. In particular, since 2016, he has served as the Principal Investigator (PI) of the EIC-Pathfinder project "ECLIPSE – ECL-based Infectious Pathogen (bio)Sensor" (<https://eclipse-project.eu>, Grant Agreement No. 101046787. Overall grant: 3.100.000 €; contribution to UNIBO: 833.000 €) funded by the EU and started on May 1<sup>st</sup>, 2022. He was also the PI of two PRIN projects funded by the Italian Ministry of University and Research (2022WAKTFR "LIAISON - Novel approaches to micro- and nano-plastic detection in water" and 2017EKCS35 "SUNSET - Supramolecular and Nanostructured Systems for the analysis of Emerging pollutants through optical Transduction"). Additionally, he served as the head of the University of Bologna's research unit for two other PRIN projects (2020CBEYHC "ASTRALI - Amplification Strategies for the Labeling and Detection of Infectious Agents" and P20229WSPC "CLEANUP – Functionalized Color Catcher for water quality management: case study applications"). Furthermore, he has secured several contracts with private companies.

As head of the Department of Chemistry "Giacomo Ciamician", Luca Prodi led a project receiving a funding of 8,675,000 as "Department of Excellence" for the years 2018-2022.

### **Invited presentations at International Conferences (2003 - )**

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2003	"Summer School on New perspectives in photochemistry" (EPA and HRSMC), Egmond aan Zee (The Netherlands)
2003	University "La Sapienza", Rome (Italy)
2005	"19. Vortragstagung, Gesellschaft Deutscher Chemiker", Jena (Germany)
2005	"2005 MRS Fall Meeting", Boston (MA, USA).

2006 University of Zurich (CH)

2006 "Photonic West", San Jose' (Ca, U.S.A.).

2007 International Conference on Molecular Machines and Sensors (ICMMS/07), Shanghai (China)

2007 41<sup>st</sup> IUPAC Congress, Torino (Italy)

2008 Hot Topics in Molecular Imaging 2008 - TOPIM'08, Les Houches (Francia)

2008 XIV Convegno Nazionale della SIRR (Società Italiana per le Ricerche sulle Radiazioni), Trieste (Italy)

2008 Dipartimento di Scienze Morfologiche-Biomediche, University of Verona.

2008 V International Conference on Porphyrins and Phthalocyanines, Moscow.

2009 ANIS1, 1<sup>st</sup> International Winter School on Nano and Biotechnology, Vipiteno (Italy).

2009 Dipartimento di Scienze Chimiche, University of Catania (Italy).

2009 Dipartimento di Chimica Inorganica, Chimica Analitica e Chimica Fisica, University of Messina (Italy).

2009 2<sup>nd</sup> France-Italy Symposium on Photosciences, Marseille (France).

2010 Complutense University, Madrid, Spain.

2010 University of Malaga, Spain.

2010 Technical University of Valencia, Spain.

2010 University of Vigo, Campus in Orense, Spain.

2010 BIT's 1st Annual World Congress of NanoMedicine, Beijin, China.

2010 East China University of Science and Technology (ECUST), Shanghai (China).

2011 Scuola Superiore di Pisa (Italy)

2011 University of Modena (Italy)

2011 19<sup>th</sup> International Symposium on the Photophysics and Photochemistry of Coordination Compounds (ISPPCC), Strasbourg (France).

2011 Swedish-Italian Workshop on Nanoscience and Medical Technology, Stockholm (Sweden)

2012 University of Bielefeld (Germany)

2012 Annual Conference of the Italian Society of Biology, Padua (Italy)

2012 International Symposium on Metal Complexes 2012 - ISMEC2012, Lisbon, Portugal

2012 University "Federico II" at Napoli (Italy)

2012 3<sup>rd</sup> Molecular Sensors & Molecular Logic Gates, MSMLG 2012, Seoul, Korea.

2012 II Jornadas Cientificas, Universitat de Valencia, Valencia, Spain

2012 Ecole Normale Supérieure de Cachan, France

2013 XVII Conference of the Italian Association of Sensors and Microsystems, Brescia, Italy

2014 Institut de Science et d'Ingénierie Supramoléculaires, University of Strasbourg, France

- 2014 1st International Symposium on Nanoparticles-Nanomaterials and Applications, Caparica, Portugal
- 2015 GIDRM NMR Day, Padova, Italy
- 2015 Faraday Discussion – Supramolecular Photochemistry, Cambridge, UK
- 2015 1st International Caparica Christmas Congress on Translational Chemistry, Lisbon, Portugal
- 2015 Christmas Lecture, CNR, Bologna, Italy
- 2015 Pacifichem, Honolulu, USA
- 2016 Helmholtz-Zentrum Dresden – Rossendorf, Dresden, Germany
- 2016 University of Trieste, Italy
- 2017 SmartChem, Catania, Italy
- 2017 International Symposium of Photochemistry and Photophysics of Coordination Compounds, Oxford, UK
- 2018 University of Verona, Italy
- 2019 Istituto di Ricerche Farmacologiche "Mario Negri" – IRCCS
- 2019 2° Workshop on Biosensors for Security, Bologna
- 2019 2019 Annual Congress of the Italian Society of PhotoBiology, Bologna
- 2019 Imaging: new frontiers from Preclinical Studies to Clinical Applications, Catania, Italy
- 2019 Opening lecture for the academic year of the doctoral school, Pavia, Italy
- 2019 Workshop "New Frontiers in Research, Diagnostics and Therapies", Trieste, Italy
- 2019 Workshop "From Molecules to Devices", Parma, Italy
- 2020 Technical University of Dortmund, Germany
- 2020 University of Münster, Germany
- 2020 4<sup>th</sup> International Caparica Conference on Chromogenic and Emissive Materials, Lisbon, Portugal (on-line)
- 2020 AEBIN Photochemistry School, San Sebastian, Spain (on-line)
- 2021 19<sup>th</sup> Congress of the European Society for Photobiology, Salzburg (Austria) and on-line.
- 2021 1<sup>st</sup> Women in Supramolecular Chemistry (WISC) workshop, Cagliari, Italy.
- 2022 IX Workshop Nazionale AICIng, Ancona, Italy.
- 2022 EuChems22, Lisbon, (Portugal)
- 2023 European Winter School on Physical Organic Chemistry (E-WISPOC23), Bressanone, Italy.
- 2024 2<sup>nd</sup> International Supramolecular Chemistry Summer School, Santa Margherita di Pula (CA), Italy
- 2024 Scientific days of the research network on imaging agents, Lyon, France
- 2024 XXVIII National Congress of the "Società Chimica Italiana", Milano, Italy

- 2024 18<sup>th</sup> Conference on Methods and Applications of Fluorescence (MAF2024), Valencia, Spain.
- 2024 Spectroscopy & Electrochemistry (SPEC 2024) Summer School, Jesolo (VE), Italy.
- 2025 Workshop on ECL, Bilbao, Spain

### **Organization of International Conferences**

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- 2008 Member of the scientific committee of “CEPC 2008 “Central European Conference on Photochemistry”, Bad Hofgastein (Austria)
- 2008 Co-chair of the organizing committee of “XIII International Symposium on Luminescence Spectrometry”, Bologna (Italy).
- 2009 Member of the scientific committee of ANIS1, 1<sup>st</sup> International Winter School on Nano and Biotechnology, Vipiteno (Italy).
- 2010 Member of the scientific committee of ANIS2, 2<sup>nd</sup> International Winter School on Nano and Biotechnology, Vipiteno (Italy).
- 2010 Member of the organizing committee of the 23<sup>rd</sup> IUPAC Symposium on Photochemistry, Ferrara (Italy)
- 2012 Member of the organizing committee of the 39<sup>o</sup> Annual Meeting of the European Radiation Research Society, Vietri (Italy)
- 2013 Member and co-chair of the organizing and scientific committee of the National Conference on the Chemistry of Biological Systems, Bertinoro (c/o University of Bologna, Italy)
- 2014 Member of the scientific committee of the “Central European Conference on Photochemistry CECP 2014”, Bad Hofgastein (Austria)
- 2014 Member of the scientific committee of the “1st International Caparica Conference on Chromogenic and Emissive Materials”, Caparica (Portugal)